INDEX TO AUTHORS.

A

Addis, T., and **Drury, D. R.** The rate of urea excretion. V. The effect of changes in blood urea concentration on the rate of urea excretion, 105

—, and —. The rate of urea excretion. VII. The effect of various other factors than blood urea concentration on the rate of urea excretion, 629

—, and —. The rate of urea excretion. VIII. The effect of changes in urine volume on the rate of urea excretion, 639

Anderson, R. J. Composition of corn pollen. II. Concerning certain lipoids, a hydrocarbon, and phytosterol occurring in the pollen of White Flint corn, 611

Austin, J. Harold. See CULLEN and AUSTIN, p. xlii

B

Barr, David P., and **Himwich, Harold E.** Studies in the physiology of muscular exercise. II. Comparison of arterial and venous blood following vigorous exercise, 525

Barr, David P., and **Himwich, Harold E.** Studies in the physiology of muscular exercise. III. Development and duration of changes in acid-base equilibrium, 539

—, —, and **Green, Robert P.** Studies in the physiology of muscular exercise. I. Changes in acid-base equilibrium following short periods of vigorous muscular exercise, 495

Barry, William M., and **Levine, Victor E.** The isolation of biliverdin from bile, p. xxxvii

Baumann, Emil J., and **Holly, O. M.** The relation of lipoids to suprarenal physiology. I. The cholesterol and lipoid phosphorus contents of the blood of rabbits before and after suprarenalectomy, 457

Benedict, Stanley R., and **Osterberg, Emil.** The metabolism of creatine, p. xlvii

—, and —. Sugar elimination after the subcutaneous injection of glucose in the dog. Including a discussion of the paper on observations on carbohydrates by Folin and Berglund, 769

Benedict, Stanley R. See NASH and BENEDICT, 757
—. See SUGIURA and BENEDICT, 33
Best, C. H., and Macleod, J. J. R. Some chemical reactions of insulin, p. xxix
Bloom, S. See RINGER, BLOOM, and JACOBSON, p. xlvii
Boothby, W. M. See SANDIFORD, BOOTHBY, and GIFFIN, p. xxiii
Brunquist, E. H. See KOEHLER, BRUNQUIST, and LOEVENHART, p. ix
—. See SCHNELLER, BRUNQUIST, and LOEVENHART, p. iii
Bulger, Harold A. See PETERS, BULGER, and EISENMAN, 687
—. See PETERS, EISENMAN, and BULGER, 719

C

Carpenter, Thorne M. A gas analysis apparatus for use with chamber respiration apparatus. A demonstration, p. xix
—. The urinary sulfur of fasting steers, p. iii
Chambers, William H. The hydrogen ion concentration of the blood in carcinoma. I. From the colorimetric determination of the blood dialysate, 229
—, and **Kleinschmidt, R. E.** The hydrogen ion concentration of the blood in carcinoma. II. From the CO_2-bicarbonate ratio, 257
Chen, T. C. See MAYNARD, FRONDA, and CHEN, 145
Chibnall, Albert Charles. A new method for the separate extraction of vacuole and protoplasmic material from leaf cells, 333
Clough, Harry D., Stokes, Arthur M., Gibbs, C. B. F., Stone, Neil C., and Murlin, John R. The influence of pancreatic perfusates on the blood sugar, D:N ratio, and respiratory quotient of depancreatized animals, p. xxx
Clowes, G. H. A., and Smith, Homer A. The influence of carbon dioxide on the velocity of segmentation of sea urchin eggs, p. xix
Cohn, Edwin Joseph. A physicochemical method of characterizing proteins. IV, p. xliv
Collip, J. B. The demonstration of an insulin-like substance in the tissues of the clam (*Mya arenaria*), p. xxxix
—. The occurrence of ketone bodies in the urine of normal rabbits in a condition of hypoglycemia following the administration of insulin—A condition of acute acidosis experimentally produced, p. xxxviii
—. The original method as used for the isolation of insulin in semipure form for the treatment of the first clinical cases, p. xl
Corley, Ralph C. See LEWIS and CORLEY, 373
Crowdle, James H., and Sherwin, Carl P. The chemical defence mechanism of the fowl, 15

Crowdle, James H., and **Sherwin, Carl P.** Synthesis of amino-acids in the animal organism. II. The synthesis of ornithine in the body of the fowl, p. iv, 365

Cullen, Glenn E., and **Austin, J. Harold.** A note on the initial acidosis occurring with anesthesia, p. xlii

Cutter, Lois. See MOORHEAD, SCHMITZ, CUTTER, and MYERS, p. xiii

D

Dakin, H. D., and **Harington, C. R.** The action of ammonium cyanide on diketones, 487

Daniels, Amy L., and **Hutton, Mary K.** Mineral deficiencies of milk as shown by growth and fertility of white rats, p. xlvii

—, and **Stearns, Genevieve.** The effect of heat treatment of milk feedings on the mineral metabolism of infants, p. xlvii

Denis, W. On the selective action of the kidney as regards the excretion of inorganic salts, 171

—, and **Hobson, S.** A study of the inorganic constituents of the blood serum in nephritis, 183

Dimmitt, Pauline S. See ROSE and DIMMITT, p. xxvii

Doisy, Edward A., Somogyi, Michael, and **Shaffer, P. A.** Some properties of an active constituent of pancreas (insulin), p. xxxi

Doisy, Edward A. See GIBSON and DOISY, p. xvii, 605

Drury, D. R. The rate of urea excretion. VI. The effect of very high blood urea concentrations on the rate of urea excretion, 113

—. See ADDIS and DRURY, 105, 629, 639

E

Eckman, Rena S. See EDDY and ECKMAN, 119

Eddy, Walter H., and **Eckman, Rena A.** The supplementary protein value of peanut flour, 119

—, and **Heft, Hattie L.** The relation of fracture healing to the inorganic phosphorus of the blood serum, p. xii

Eisenman, Anna J. See PETERS, BULGER, and EISENMAN, 687

—. See PETERS, EISENMAN, and BULGER, 709

F

Falk, K. George. See NOYES, SUGIURA, and FALK, 653

Fiske, Cyrus H. The hydrolysis of amides in the animal body. The comparative stability of surface active homologs in relation to the mechanism of enzyme action, 191

Foster, G. L. Studies on carbohydrate metabolism. I. Some comparisons of blood sugar concentrations in venous blood and in finger blood, 291

Foster, G. L. Studies on carbohydrate metabolism. II. An interpretation of the blood sugar phenomena following the ingestion of glucose, 303

—. See SCHMIDT and FOSTER, p. xvi

Fronda, F. M. See MAYNARD, FRONDA, and CHEN, 145

G

Gibbs, C. B. F. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, p. xxx

Gibson, Harry V., and **Doisy, Edward A.** The effect of some organic acids on the excretion of uric acid by man, p. xvii

—, and —. A note on the effect of some organic acids upon the uric acid excretion of man, 605

Giffin, H. Z. See SANDIFORD, BOOTHBY, and GIFFIN, p. xxiii

Green, Robert P. See BARR, HIMWICH, and GREEN, 495

Greenwald, Isidor. Observations on the nature of the carbohydrate of normal urine. p. xiv

Griffith, Wendell H. See LEWIS and GRIFFITH, p. xxii

Gross, E. G. Inorganic salt metabolism. II. Inorganic ion ratio after administration of oxalates and citrates, 729

H

Haggard, Howard W. An accurate method of determining small amounts of ethyl ether in air, blood, and other fluids, together with a determination of the coefficient of distribution of ether between air and blood at various temperatures, 131

Hall, F. G. A method for the determination of dissolved carbon dioxide, 751

Hammett, Frederick S. Creatinine and creatine in muscle extracts. IV. Concerning the formation of creatine from methyl guanidine in muscle, 323

—. The refractive index and water content of the blood serum of thyroparathyroidectomized and parathyroidectomized albino rats, p. x

Harington, C. R. See DAKIN and HARINGTON, 487

Hart, E. B. See STEENBOCK, JONES, and HART, p. xxvi

Heft, Hattie L. See EDDY and HEFT, p. xii

Heller, V. G. Studies on yeast. V. The vitamine B content of yeast, 385

Hendrix, Bryon M., and **Sweet, Joshua E.** The effect of Eck's fistula upon pancreatic diabetes in dogs, 161

Hepburn, Joseph S. Studies on by-product yeast, p. xli

—. The titer value of chicken fat, p. xlii

Himwich, Harold E. See BARR and HIMWICH, 525, 539
—. See BARR, HIMWICH, and GREEN, 495
Hobson, S. See DENIS and HOBSON, 183
Holly, O. M. See BAUMANN and HOLLY, 457
Hopping, Aleita, and **Scott, Ernest L.** Nitrogen distribution in the blood and urine of the alligator, p. xxxiii
Hubbard, Roger S. Ingested fat and body fat as precursors of the acetone bodies, 357
Hunt, Charles H., Winter, A. R., and **Miller, R. C.** A possible factor influencing the assimilation of calcium, 739
Hunter, Andrew, and **Smith R. G.** Rate of ammonia liberation in tryptic digestion of protein, p. xlvii
Husa, W. J. See ROCKWOOD and HUSA, p. v
Hutton, Mary K. See DANIELS and HUTTON, p. xlvii

J

Jacobson, S. See RINGER, BLOOM, and JACOBSON, p. xlvii
Jersey, Vernon. See MORRIS and JERSEY, p. xviii
Johns, Carl O. See WATERMAN, JOHNS, and JONES, 93
Jones, D. Breese. See WATERMAN, JOHNS, and JONES, 93
Jones, J. H. See STEENBOCK, JONES, and HART, p. xxvi
Jones, J. H. See STEENBOCK, SELL, and JONES, 411
Jones, Walter, and **Perkins, M. E.** The formation of nucleotides from yeast nucleic acid by the action of sodium hydroxide at room temperature, 567
—, and —. The gravimetric determination of organic phosphorus, 343
—, and —. The nucleotides formed by the action of boiled pancreas on yeast nucleic acid, 557

K

Kendall, E. C. The relationship between structure and chemical properties of some substances related to thyroxin, p. xlvii
Killian, John A. See MOSENTHAL and KILLIAN, p. xliii
Kingsbury, F. B. The benzoate test for renal function, p. xxi
Kleinschmidt, R. E. See CHAMBERS and KLEINSCHMIDT, 257
Koehler, Alfred E. Hydrogen ion changes accompanying death, p. viii
—, **Brunquist, E. H.,** and **Loevenhart, A. S.** The production of acidosis by anoxemia, p. ix

L

Levene, P. A. The action of diazomethane on xanthosine, 437

Levene, P. A. Hydrolysis of yeast nucleic acid with dilute alkali at room temperature. (Conditions of Steudel and Peiser), 9

—, and **Meyer, G. M.** Epiglucosamine, 221

—, and **Mikeska, L. A.** On a possible asymmetry of aliphatic diazo compounds. IV, 795

—, and **Rolf, Ida P.** Lysolecithins and lysocephalins, 743

—, and **Simms, Henry S.** Calculation of isoelectric points, 801

Levine, Victor E. See BARRY and LEVINE, p. xxxvii

Lewis, Howard B., and **Corley, Ralph C.** Studies in uric acid metabolism. III. The influence of fats and carbohydrates on the endogenous uric acid elimination, 373

—, and **Griffith, Wendell H.** The synthesis and rate of elimination of hippuric acid in the organism of the rabbit, p. xxii

Loevenhart, A. S. See KOEHLER, BRUNQUIST, and LOEVENHART, p. ix

—. See SCHNELLER, BRUNQUIST, and LOEVENHART, p. iii

Lundsgaard, Christen, and **Möller, Eggert.** Investigations on the immediate effect of heavy exercise (stair-running) on some phases of circulation and respiration in normal individuals. I. Oxygen and carbon dioxide content of blood drawn from the cubital vein before and after exercise, 315

Lundsgaard, Christen, and **Möller, Eggert.** Investigations on the immediate effect of heavy exercise (stair-running) on some phases of circulation and respiration in normal individuals. II. Oxygen and carbon dioxide content of blood drawn from a cubital vein at different intervals after exercise, 477

—, and —. Investigations on the immediate effect of heavy exercise (stair-running) on some phases of circulation and respiration in normal individuals. III. Effect of varying the amount and kind of exercise, 599

M

MacLeod, Grace. See ROSE and MACLEOD, p. xxiv

Macleod, J. J. R. See BEST and MACLEOD, p. xxix

Mathews, A. P. Concerning the nature of cohesion, p. xlvii

Mattill, H. A. The utilization of carbohydrate by rats deprived of vitamine B, p. xxv, 717

—, and **Stone, Neil C.** The nutritive properties of milk with special reference to reproduction in the albino rat. II, 443

Maynard, L. A., Fronda, F. M., and **Chen, T. C.** The protein efficiency of combinations of cornmeal and certain other feedingstuffs, notably rice bran, 145

McClendon, J. F. Iodine in natural waters in relation to goiter, p. xvi

McEllroy, W. S., and Pollock, H. O. On normal blood sugar values in man and animals, p. xlvii

Merrill, John A. See SCHMIDT and MERRILL, p. xx

Meyer, G. M. See LEVENE and MEYER, 221

Mikeska, L. A. See LEVENE and MIKESKA, 795

Miller, Harry G. Potassium in animal nutrition. I. Influence of potassium on urinary sodium and chlorine excretion, 45

—. Potassium in animal nutrition. II. Potassium in its relation to the growth of young rats, 61

Miller, R. C. See HUNT, WINTER, and MILLER, 739

Mills, C. A. Effect of food ingestion on the clotting time of the blood, p. xviii

Minot, A. S. Lead studies. II. A critical note on the electrolytic determination of lead in biological material, 1

Möller, Eggert. See LUNDSGAARD and MÖLLER, 315, 477, 599

Moorhead, J. J., Schmitz, H. W., Cutter, Lois, and Myers, V. C. The phosphorus and calcium concentration of the serum of patients during the period of fracture union, p. xiii

Morgulis, Sergius. The effect of injections of various substances upon the blood composition of the tortugas crawfish *Panulirus argus*, p. xxxiv

—. A study of the blood of the crawfish *Panulirus argus* with special reference to the absence of creatinine in arthropod blood, p. xxxvi

Morris, J. Lucien, and Jersey, Vernon. A chemical study of saliva, p. xviii

Morse, Withrow. The enzymes of the red blood corpuscles of the mammal, p. xxvii

—. The rise of acidity in autolysis, p. viii

Mosenthal, Herman O., and Killian, John A. The influence of alkali therapy on ketosis in diabetes mellitus, p. xliii

Mueller, J. Howard. A study of the non-cystine-protein sulfur, p. xv

Murlin, John R. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, p. xxx

Myers, V. C. See MOORHEAD, SCHMITZ, CUTTER, and MYERS, p. xiii

N

Nash, Thomas P., Jr., and Benedict, Stanley R. On the mechanism of phlorhizin diabetes, 757

Nelson, E. M. See STEENBOCK, SELL, and NELSON, 399

Neuhausen, Benjamin S., and Rioch, David M. The refractometric determination of serum proteins, 353

Newcomer, H. S. A new optical instrument for the determination of hemoglobin, 569

Noyes, Helen Miller, Sugiura, Kanematsu, and **Falk, K. George.** Studies on enzyme action. XXII. The lipolytic actions of various tissue and tumor extracts at different hydrogen ion concentrations, 653

O

Olsen, Aksel G. See WILLAMAN and OLSEN, 815

Osterberg, Emil. See BENEDICT and OSTERBERG, p. xlvii, 769

P

Park, E. A. See POWERS, PARK, and SIMMONDS, 575

Perkins, M. E. See JONES and PERKINS, 343, 557, 567

Peters, John P., Bulger, Harold A., and **Eisenman, Anna J.** Studies of the carbon dioxide absorption curve of human blood. I. The apparent variations of pK_1 in the Henderson-Hasselbalch equation, 687

—, **Eisenman, Anna J.,** and **Bulger, Harold A.** Studies of the carbon dioxide absorption curve of human blood. II. The nature of the curve representing the relation of pH to $BHCO_3$, 709

Phillips, S. See WATERMAN, JOHNS, and JONES, 93

Pollock, H. O. See MCELLROY and POLLOCK, p. xlvii

Powers, G. F., Park, E. A., and **Simmonds, Nina.** The influence of radiant energy upon the development of xerophthalmia in rats: A remarkable demonstration of the beneficial influence of sunlight and out-of-door air upon the organism, 575

R

Rakestraw, N. W. See SWAIN and RAKESTRAW, p. iv

Ringer, A. I., Bloom, S., and **Jacobson, S.** The protein requirements in diabetes, p. xlvii

Rioch, David M. See NEUHAUSEN and RIOCH, 353

Rockwood, E. W., and **Husa, W. J.** The effect of certain nitrogen compounds upon the activity of urease, p. v

Rogers, Hobart. Exposure to light as a source of error in estimating uric acid by the Folin and Wu method, 325

Rolf, Ida P. See LEVENE and ROLF, 743

Rose, Mary Swartz, and **MacLeod, Grace.** Experiments on the utilization of the calcium of almonds by man, p. xxiv

Rose, William C., and **Dimmitt, Pauline S.** The nephropathic action of mucic acid, p. xxvii

Rowe, Allan Winter. The metabolism of galactose. I. The threshold of tolerance in normal individuals, p. vi

—. Studies on the metabolism in pregnancy. I. Changes in the tension of alveolar carbon dioxide, p. xxviii

S

Sandiford, K., Boothby, W. M., and Giffin, H. Z. The amino-acid nitrogen in the blood and its possible relation to the elevation of the metabolism in myelogenous leucemia, p. xxiii

Schmidt, Carl L. A., and Foster, G. L. The separation of the hexone bases from certain protein hydrolysates by electrolysis, p. xvi

—, and **Merrill, John A.** The estimation of bile acids in icterus urine, p. xx

Schmitz, Herbert W. A simple method of estimating the salivary urea, p. xliii

—. See Moorhead, Schmitz, Cutter, and Myers, p. xiii

Schneller, E. J., Brunquist, E. H., and Loevenhart, A. S. The effect of anoxemia on metabolism, p. iii

Scott, Ernest L. See Hopping and Scott, p. xxxiii

Sell, Mariana T. See Steenbock, Sell, and Jones, 411

—. See Steenbock, Sell, and Nelson, 399

Severy, Hazel W. The occurrence of copper and zinc in certain marine animals, 79

Sevringhaus, Elmer L. Post-mortem acidity, p. vii

Shackell, L. F. Dye-protein aggregates. I. Congo fibrin, p. xxxiii

Shaffer, P. A. See Doisy, Somogyi, and Shaffer, p. xxxi

Sherwin, Carl P. See Crowdle and Sherwin, 15, p. iv, 365

—. See Shiple and Sherwin, 671

Shiple, George J., and Sherwin, Carl P. Some derivatives of cystine and cysteine, 671

Simmonds, Nina. See Powers, Park, and Simmonds, 575

Simms, Henry S. See Levene and Simms, 801

Simpson, George Eric. The antiketogenic action of glucose, p. xxiv

Smith, Homer A. See Clowes and Smith, p. xix

Smith, R. G. See Hunter and Smith, p. xlvii

Somogyi, Michael. See Doisy, Somogyi, and Shaffer, p. xxxi

Stearns, Genevieve. See Daniels and Stearns, p. xlvii

Steenbock, H., Jones, J. H., and Hart, E. B. Stability of vitamine in cod liver oil, p. xxvi

—, **Sell, Mariana T., and Jones, J. H.** Vitamine B. II. Storage of vitamine B by the rat, 411

Steenbock, H., Sell, Mariana T., and **Nelson, E. M.** Vitamine B. I. A modified technique in the use of the rat for determinations of vitamine B, 399

Stokes, Arthur M. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, p. xxx

Stone, Neil C. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, p. xxx

—. See MATTILL and STONE, 443

Sugiura, Kanematsu, and **Benedict, Stanley R.** A study of the adequacy of certain synthetic diets for the nutrition of pigeons, 33

—. See NOYES, SUGIURA, and FALK, 653

Swain, Robert E., and **Rakestraw, N. W.** Further observations on the chemical composition of the body fluids of the sea-lion, p. iv

Sweet, Joshua E. See HENDRIX and SWEET, 161

T

Tolstoi, Edward. The inorganic phosphorus of the serum and plasma of ninety-one normal adults as determined by the Bell and Doisy method, 157

W

Waterman, Henry C., Johns, Carl O., and **Jones, D. Breese.** Conphaseolin. A new globulin from the navy bean, *Phaseolus vulgaris*, 93

Willaman, J. J., and **Olsen, Aksel G.** The bios requirement of bakers' yeast, 815

Winter, A. R. See HUNT, WINTER, and MILLER, 739

Wong, San Yin. Colorimetric determination of iron and hemoglobin in blood, 421

—. The use of persulfate in the estimation of nitrogen by the Arnold-Gunning modification of Kjeldahl's method, 427

—. The use of persulfate in the estimation of nitrogen by Folin's direct nesslerization method, 431

INDEX TO SUBJECTS.

A

Absorption curve:
Carbon dioxide, of human blood (PETERS, BULGER, and EISENMAN) 687
(PETERS, EISENMAN, and BULGER) 709
— —, slope change in (BARR, HIMWICH, and GREEN) 505

Acetone bodies:
Body fat as precursor (HUBBARD) 357
Ingested fat as precursor (HUBBARD) 357

Acetyl benzyl cysteine:
Preparation (SHIPLE and SHERWIN) 681

Acetyl derivative:
Bromination (ANDERSON) 624
Phytosterol palmitate, preparation (ANDERSON) 615

Acid(s):
Fatty, lysolecithin and lysocephalin mixture, presence in (LEVENE and ROLF) 747
Organic, effect of, on uric acid excretion of man (GIBSON and DOISY) 605

Acid-base equilibrium:
Amount of work, relation to (BARR, HIMWICH, and GREEN) 510

Adenine:
Nucleotide (JONES and PERKINS) 557
—, fraction containing (LEVENE) 12

Adrenalin:
Urea excretion rate, effect on (ADDIS and DRURY) 634

Age:
Vitamine B storage, relation to (STEENBOCK, SELL, and JONES) 412

Air:
Ethyl ether distributed between blood and (HAGGARD) 140
— — — between water and (HAGGARD) 138
Out-of-door, beneficial influence of, on the organism (POWERS, PARK, and SIMMONDS) 575

Alkali:
Hydrolysis of yeast nucleic acid with dilute, at room temperature (LEVENE) 9

Amides:
Hydrolysis, in the animal body (FISKE) 191

Amino-acid(s):
Basic, in phaseolin determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 103

Amino-acid(s)—*continued:*
Content of proteins in comparison with arachin (EDDY and ECKMAN) 120
— — — in comparison with conarachin (EDDY and ECKMAN) 120
Synthesis in animal organism (CROWDLE and SHERWIN) 365
***m*-Aminobenzoic acid:**
Defense of fowl against (CROWDLE and SHERWIN) 21
Fate in body of fowl (CROWDLE and SHERWIN) 29
— — organism of dog (CROWDLE and SHERWIN) 28
Ammonia:
Benzildicyanhydrin, action on (DAKIN and HARINGTON) 491
Ammonium cyanide:
Anisil, action on (DAKIN and HARINGTON) 492
Benzil, action on (DAKIN and HARINGTON) 490
Diketones, action on (DAKIN and HARINGTON) 487
m-Dinitrobenzil, action on (DAKIN and HARINGTON) 491
Furil, action on (DAKIN and HARINGTON) 493
Piperil, action on (DAKIN and HARINGTON) 493
Ammonium molybdate:
Precipitation of magnesium ammonium phosphate, influence on (JONES and PERKINS) 349
Ammonium sulfate:
Fractionation (WATERMAN, JOHNS, and JONES) 95
Method, preparation of phaseolin by (WATERMAN, JOHNS, and JONES) 99
Ampholyte:
Ionization (LEVENE and SIMMS) 806
Poly-acidic, poly-basic, isoelectric point (LEVENE and SIMMS) 807
Simple, isoelectric point (LEVENE and SIMMS) 808
Anisil:
Ammonium cyanide, action of, on (DAKIN and HARINGTON) 492
Arachin:
Amino-acid content of proteins in comparison (EDDY and ECKMAN) 120

B

Benzaldehyde:
Defense of fowl against (CROWDLE and SHERWIN) 16
Benzildicyanhydrin:
Ammonia, action of (DAKIN and HARINGTON) 491
Preparation (DAKIN and HARINGTON) 490
Benzyl cysteine:
Preparation (SHIPLE and SHERWIN) 676
Benzyl cysteine phenylhydantoin:
Preparation (SHIPLE and SHERWIN) 680

Bicarbonate:
Carbon dioxide ratio (CHAMBERS and KLEINSCHMIDT) 257
Hydrogen ion concentration, relation to, nature of curve representing (PETERS, EISENMAN, and BULGER) 709

Bios:
Function in yeast growth (WILLAMAN and OLSEN) 824
Identity (WILLAMAN and OLSEN) 823
Necessity for normal growth of bakers' yeast (WILLAMAN and OLSEN) 821
Non-identity with water-soluble B (WILLAMAN and OLSEN) 816
Requirement of bakers' yeast (WILLAMAN and OLSEN) 815
Yeast growth without (WILLAMAN and OLSEN) 823

Blood:
Arterial, carbon dioxide-combining capacity in, and lactic acid (BARR and HIMWICH) 526
Carbon dioxide absorption curve, 3 minutes after exercise (BARR, HIMWICH, and GREEN) 502
— — content of, drawn from a cubital vein after exercise (LUNDSGAARD and MÖLLER) 315
— — — of, drawn from a cubital vein at different intervals after exercise (LUNDSGAARD and MÖLLER) 477

Blood—*continued:*
Carbon dioxide content of, drawn from a cubital vein before exercise (LUNDSGAARD and MÖLLER) 315
— — tension, 3 minutes after exercise (BARR, HIMWICH, and GREEN) 502
Carcinoma, hydrogen ion concentration (CHAMBERS) 229
(CHAMBERS and KLEINSCHMIDT) 257
Cholesterol content of blood of rabbits after suprarenalectomy (BAUMANN and HOLLY) 457
— — — blood of rabbits before suprarenalectomy (BAUMANN and HOLLY) 457
Dialysate, colorimetric determination (CHAMBERS) 229
Ethyl ether distributed between air and (HAGGARD) 140
— — in, analytical estimation (HAGGARD) 136
Finger, blood sugar concentrations in (FOSTER) 291
Hemoglobin in, colorimetric determination (WONG) 421
Human, carbon dioxide absorption curve (PETERS, BULGER, and EISENMAN) 687
(PETERS, EISENMAN, and BULGER) 709
Hydrogen ion concentration, 3 minutes after exercise (BARR, HIMWICH, and GREEN) 502

Blood—*continued:*
Iron in, colorimetric determination (WONG) 421
Lipoid phosphorus content of blood of rabbits after suprarenalectomy (BAUMANN and HOLLY) 457
— — — of blood of rabbits before suprarenalectomy (BAUMANN and HOLLY) 457
Oxygen content of, drawn from a cubital vein after exercise (LUNDSGAARD and MÖLLER) 315
— — —, drawn from a cubital vein at different intervals after exercise (LUNDSGAARD and MÖLLER) 477
— — —, drawn from a cubital vein before exercise (LUNDSGAARD and MÖLLER) 315
Serum in nephritis, inorganic constituents (DENIS and HOBSON) 183
Sugar concentrations in finger blood (FOSTER) 291
— — — venous blood (FOSTER) 291
— phenomena following ingestion of glucose (FOSTER) 303
Urea concentration, effect of changes in, on rate of urea excretion (ADDIS and DRURY) 105
— —, — — very high, on rate of urea excretion (DRURY) 113
Blood—*continued:*
Urea concentration on rate of urea excretion, effect of various other factors than (ADDIS and DRURY) 629
Venous, blood sugar concentrations in (FOSTER) 291
—, carbon dioxide-combining capacity in, and lactic acid (BARR and HIMWICH) 526
—, changes in, after exercise (BARR, HIMWICH, and GREEN) 509
Bran:
Rice, protein efficiency of combinations of cornmeal with (MAYNARD, FRONDA, and CHEN) 145
***p*-Bromophenyl mercapturic acid:**
Preparation (SHIPLE and SHERWIN) 685
Bromosuccinic acid:
Preparation (LEVENE and MIKESKA) 797
Brucine:
Salts of guanine nucleotide (JONES and PERKINS) 560

C

Caffeine:
Fraction (LEVENE) 440
Calcium:
Assimilation, possible factor influencing (HUNT, WINTER, and MILLER) 739
Calcium chloride:
Injection, excretion of magnesium chloride after (DENIS) 177

Cane-sugar:
Urea excretion rate, effect on (Addis and Drury) 632

Carbohydrate(s):
Endogenous uric acid elimination, influence of (Lewis and Corley) 373
Folin and Berglund observations, discussion (Benedict and Osterberg) 769
Ingestion (Lewis and Corley) 379
Metabolism, studies (Foster) 291, 303
Utilization by rats deprived of vitamine B (Mattill) 717

Carbon dioxide:
Absorption curve of blood 3 minutes after exercise (Barr, Himwich, and Green) 502
— —, change in level in relation to lactic acid (Barr, Himwich, and Green) 503
— — of human blood (Peters, Bulger, and Eisenman) 687
(Peters, Eisenman, and Bulger) 709
— —, slope changes in (Barr, Himwich, and Green) 505
Bicarbonate ratio (Chambers and Kleinschmidt) 257
Combining capacity in arterial blood and lactic acid (Barr and Himwich) 526
Content of blood drawn from a cubital vein after exercise (Lundsgaard and Möller) 315

Carbon dioxide—*continued:*
Content of blood drawn from a cubital vein at different intervals after exercise (Lundsgaard and Möller) 477
— — — drawn from a cubital vein before exercise (Lundsgaard and Möller) 315
Dissolved, method for determination (Hall) 751
Tension of blood 3 minutes after exercise (Barr, Himwich, and Green) 502
Venous blood drawn from arm at different intervals after leg exercise (Lundsgaard and Möller) 479
— — — from arm during rest (Lundsgaard and Möller) 479

Carcinoma:
Blood, hydrogen ion concentration (Chambers) 229
(Chambers and Kleinschmidt) 257

Chlorine:
Excretion, influence of potassium on (Miller) 45

***p*-Chlorobenzyl cysteine:**
Preparation (Shiple and Sherwin) 682

Cholesterol:
Content of blood of rabbits after suprarenalectomy (Baumann and Holly) 457
— — — of rabbits before suprarenalectomy (Baumann and Holly) 457

Chromate method:
Lead from mixtures of lead and manganese salts by, comparison of electrolytic method (MINOT) 7

Cinnamic acid:
Defense of fowl against (CROWDLE and SHERWIN) 18

Circulation:
Exercise, heavy, effect of (LUNDSGAARD and MÖLLER) 315, 477, 599

Citrates:
Inorganic ion ratio after administration (GROSS) 729

Coagulation:
Proteins in saline extract (WATERMAN, JOHNS, and JONES) 95

Conarachin:
Amino-acid content of proteins in comparison (EDDY and ECKMAN) 120

Conphaseolin:
Composition, elementary (WATERMAN, JOHNS, and JONES) 99
Cystine in, determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 101
Globulin from the navy bean, *Phaseolus vulgaris* (WATERMAN, JOHNS, and JONES) 93
Hexone bases in, determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 101
Isolation (WATERMAN, JOHNS, and JONES) 97
Nitrogen distribution in, determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 101

Conphaseolin—*continued:*

Copper:
Content, comparison for California and Eastern marine animals (SEVERY) 89
Cryptochiton (*stelleri*), distribution in (SEVERY) 89
Occurrence in marine animals (SEVERY) 79
Tissues of sea-lion, distribution in (SEVERY) 90
—— whale, distribution in (SEVERY) 90

Corn:
Pollen, ether extract of, unsaponifiable matter contained in (ANDERSON) 625
—, fat from (ANDERSON) 621
—, phytosterol from fat of, properties (ANDERSON) 622
—, —— fat of, purification (ANDERSON) 622
White Flint, pollen of, hydrocarbon occurring in (ANDERSON) 611
——, ——, lipoids occurring in (ANDERSON) 611
——, ——, phytosterol occurring in (ANDERSON) 611

Cornmeal:
Protein efficiency of combinations, and feeding-stuffs, notably rice bran (MAYNARD, FRONDA, and CHEN) 145

Creatine:
Methyl guanidine in muscle (HAMMETT) 323
Muscle extracts (HAMMETT) 323
Creatinine:
Muscle extracts (HAMMETT) 323
Cryptochiton stelleri:
Copper, distribution of (SEVERY) 89
Zinc, distribution of (SEVERY) 89
Cysteine:
Preparation (SHIPLE and SHERWIN) 675
Cystine:
Conphaseolin in, determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 101
Preparation (SHIPLE and SHERWIN) 671
Cystine phenylhydantoic acid:
Preparation (SHIPLE and SHERWIN) 674
Cystine phenylhydantoin:
Preparation (SHIPLE and SHERWIN) 674
Cytosine:
Nucleotide (JONES and PERKINS) 558
—, fraction containing (LEVENE) 12

D

Denis and Minot method:
Normal feces, analysis, by (MINOT) 5
Diabetes:
Pancreatic, in dogs, effect of Eck fistula on (HENDRIX and SWEET) 161
Diabetes—*continued:*
Phlorhizin, mechanism (NASH and BENEDICT) 757
Diazo compounds:
Aliphatic, asymmetry of (LEVENE and MIKESKA) 795
Diazomethane:
Xanthosine, action on (LEVENE) 437
Diet(s):
Nutrition of pigeons on synthetic (SUGIURA and BENEDICT) 33
Vitamine B storage, relation to (STEENBOCK, SELL, and JONES) 415
Diethyl-α-diazoglutarate:
Preparation (LEVENE and MIKESKA) 799
Diethyl diazosuccinate:
Reduction (LEVENE and MIKESKA) 800
Diketones:
Action of ammonium cyanide on (DAKIN and HARINGTON) 487
Dimethyl xanthosine:
Fraction (LEVENE) 441
Hydrolysis (LEVENE) 442
***m*-Dinitrobenzil:**
Ammonium cyanide, action of, on (DAKIN and HARINGTON) 491
Diphenylacetyl cystine:
Preparation (SHIPLE and SHERWIN) 673

E

Eck fistula:
Pancreatic diabetes in dogs, effect on (HENDRIX and SWEET) 161

Egg:
Production in pigeons, effect of ration on (SUGIURA and BENEDICT) 35

Electrolysis:
Lead determination in biological material (MINOT) 1

Enzyme:
Action, comparative stability of surface active homologs in relation to mechanism (FISKE) 191

Epiglucosamine:
Phenylosazone (LEVENE and MEYER) 226
Preparation (LEVENE and MEYER) 221

Esters:
Human tumor extracts on, at different hydrogen ion concentrations (NOYES, SUGIURA, and FALK) 660
— — — —, at the same hydrogen ion concentration after standing at different hydrogen ion concentrations (NOYES, SUGIURA, and FALK) 660

Ether extract:
Corn pollen, unsaponifiable matter contained in (ANDERSON) 625

Ethyl ether:
Determination, analytical (HAGGARD) 131
Distribution between air and blood (HAGGARD) 140
— — — and water (HAGGARD) 138

Ethyl ether—*continued:*
Estimation, analytical, in blood containing a known amount of ether (HAGGARD) 136
—, —, — water containing a known amount of ether (HAGGARD) 136

Exercise:
Muscular, physiology (BARR, HIMWICH, and GREEN) 495 (BARR and HIMWICH) 525, 539
Urea excretion rate, effect on (ADDIS and DRURY) 634

F

Fat:
Body, as precursor of acetone bodies (HUBBARD) 357
Corn pollen (ANDERSON) 621
— —, phytosterol from, properties (ANDERSON) 622
— —, — —, purification (ANDERSON) 622
— —, saponification (ANDERSON) 621
Endogenous uric acid elimination, influence of (LEWIS and CORLEY) 373
Ingestion (LEWIS and CORLEY) 375
—, as precursor of acetone bodies (HUBBARD) 357
Nutrition of pigeons, importance of (SUGIURA and BENEDICT) 39

Feedingstuffs:
Protein efficiency of combinations of cornmeal and (MAYNARD, FRONDA, and CHEN) 145
Flour:
Peanut, supplementary protein value, when combined with white flour as compared with muscle protein (EDDY and ECKMAN) 123
Wheat (white), protein-supplementing value of peanut flour when combined with, as compared with muscle protein (EDDY and ECKMAN) 123
Furil:
Ammonium cyanide, action of, on (DAKIN and HARINGTON) 493

G

Globulin:
Conphaseolin from the navy bean, *Phaseolus vulgaris* (WATERMAN, JOHNS, and JONES) 93
Glucose:
Ingestion, blood sugar phenomena following (FOSTER) 303
Injection, subcutaneous, in dog, sugar elimination after (BENEDICT and OSTERBERG) 769
Glutamic acid:
Urea excretion rate, effect on, of (ADDIS and DRURY) 634
Glyceryl triacetate:
Muscle extracts on, at different hydrogen ion concentrations (NOYES, SUGIURA, and FALK) 659
Glyceryl triacetate—*continued:*
Rat tumor on, at different hydrogen ion concentrations (NOYES, SUGIURA, and FALK) 659
Growth:
Diet, synthetic, adequacy for (SUGIURA and BENEDICT) 37
Potassium in relation to, in young rats (MILLER) 61
Guanine:
Nucleotide (JONES and PERKINS) 557
—, brucine salts (JONES and PERKINS) 560
Guanylic acid:
Fraction (LEVENE) 11

H

Hemoglobin:
Blood, colorimetric determination in (WONG) 421
Determination, new optical instrument for (NEWCOMER) 569
Henderson-Hasselbalch equation:
Variations, apparent, in pK_1 in (PETERS, BULGER, and EISENMAN) 687
Hexone:
Bases in conphaseolin determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 101
Hydrocarbon:
Pollen of White Flint corn (ANDERSON) 611
Hydrogen ion concentration:
Arterial blood (BARR and HIMWICH) 531

Hydrogen ion concentration—*continued:*
Bicarbonate, relation to, nature of curve representing (PETERS, EISENMAN, and BULGER) 709
Blood in carcinoma (CHAMBERS) 229
(CHAMBERS and KLEINSCHMIDT) 257
— 3 minutes after exercise (BARR, HIMWICH, and GREEN) 502
Tissue extracts at different, lipolytic action (NOYES, SUGIURA, and FALK) 653
Tumor extracts at different, lipolytic action (NOYES, SUGIURA, and FALK) 653
Venous blood (BARR and HIMWICH) 531
***p*-Hydroxybenzaldehyde:**
Defense of fowl against (CROWDLE and SHERWIN) 17

I

Inorganic constituents:
Blood serum in nephritis (DENIS and HOBSON) 183
Ion ratio:
Inorganic, after administration of citrates (GROSS) 729
—, — — of oxalates (GROSS) 729
Iron:
Blood, colorimetric determination in (WONG) 421
Isoelectric points:
Calculation (LEVENE and SIMMS) 801

K

Kidney:
Excretion of inorganic salts (DENIS) 171

L

Lactic acid:
Carbon dioxide absorption curves, level of, in relation to (BARR, HIMWICH, and GREEN) 503
— — -combining capacity in arterial blood and (BARR and HIMWICH) 526
— — — in venous blood and (BARR and HIMWICH) 526
Uric acid excretion, effect on (GIBSON and DOISY) 609
Lead:
Electrolytic determination of, in biological material (MINOT) 1
Lead nitrate:
Lead by electrolysis from (MINOT) 4
Light:
Exposure as a source of error in estimating uric acid by Folin-Wu method (ROGERS) 325
Lipoid(s):
Pollen of White Flint corn (ANDERSON) 611
Suprarenal physiology, relation (BAUMANN and HOLLY) 457
Lipoid phosphorus:
Content of blood of rabbits after suprarenalectomy (BAUMANN and HOLLY) 457
— — — of rabbits before suprarenalectomy (BAUMANN and HOLLY) 457

Lipolytic actions:
Tissue extracts at different hydrogen ion concentrations (NOYES, SUGIURA, and FALK) 653
Tumor extracts at different hydrogen ion concentrations (NOYES, SUGIURA, and FALK) 653
Lysocephalins:
Preparation (LEVENE and ROLF) 743
Lysolecithins:
Preparation (LEVENE and ROLF) 743

M

Magnesia:
Mixture, precipitation of phosphoric acid with (JONES and PERKINS) 346
Magnesium ammonium phosphate:
Precipitation, influence of ammonium molybdate on (JONES and PERKINS) 349
Properties (JONES and PERKINS) 348
Magnesium chloride:
Excretion after intravenous injection of calcium chloride (DENIS) 177
Magnesium sulfate:
Excretion after intravenous injection (DENIS) 176
Manganese dioxide:
Electrolytic deposition, from solutions of pure manganese nitrate (MINOT) 3
Manganese nitrate:
Manganese dioxide from solutions, by electrolytic decomposition (MINOT) 3
Metabolism:
Carbohydrate, studies (FOSTER) 303
Salt, inorganic (GROSS) 729
Uric acid, studies (LEWIS and CORLEY) 373
Methyl guanidine:
Creatine from, in muscle (HAMMETT) 323
Milk:
Nutritive properties, with special reference to reproduction in the albino rat (MATTILL and STONE) 443
Rations containing yeast (MATTILL and STONE) 448
Urea excretion rate, effect on (ADDIS and DRURY) 633
Muscle:
Creatine from methyl guanidine in (HAMMETT) 323
Extracts, creatinine and creatine in (HAMMETT) 323
Protein, protein-supplementing value of peanut flour when combined with white flour as compared (EDDY and ECKMAN) 123

N

Nephritis:
Blood serum in, inorganic constituents (DENIS and HOBSON) 183
Nitrate:
Lead, from mixtures of lead and manganese nitrates by electrolysis (MINOT) 5

m-Nitrobenzaldehyde:
Defense of fowl against (CROWDLE and SHERWIN) 19
Nitrobenzene:
Defense of fowl against (CROWDLE and SHERWIN) 20
Nitrogen:
Conphaseolin determined by Van Slyke's method, distribution of, in (WATERMAN, JOHNS, and JONES) 101
Distribution in phaseolin, determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 103
Estimation by Arnold-Gunning modification of Kjeldahl's method (WONG) 427
— — Folin's direct nesslerization method (WONG) 431
o-Nitrophenylpropiolic acid:
Defense of fowl against (CROWDLE and SHERWIN) 21
Nucleic acid:
Fraction (LEVENE) 10
Nucleotide:
Adenine (JONES and PERKINS) 557
Cytosine (JONES and PERKINS) 558
Formation by action of boiled pancreas on yeast nucleic acid (JONES and PERKINS) 557
Formation from yeast nucleic acid by action of sodium hydroxide at room temperature (JONES and PERKINS) 567
Nucleotide—*continued:*
Guanine (JONES and PERKINS) 557
Uracil (JONES and PERKINS) 558
Nutrition:
Animal, potassium in (MILLER) 45, 61
Nutritive properties of milk with special reference to reproduction in the albino rat (MATTILL and STONE) 443
Pigeon, synthetic diets for (SUGIURA and BENEDICT) 33

O

Optical instrument:
Hemoglobin determination by new (NEWCOMER) 569
Organism:
Out-of-door air, influence of (POWERS, PARK, and SIMMONDS) 575
Sunlight, influence of, (POWERS, PARK, and SIMMONDS) 575
Ornithine:
Synthesis in body of fowl (CROWDLE and SHERWIN) 365
Oxalates:
Inorganic ion ratio after administration (GROSS) 729
Oxygen:
Content of blood drawn from a cubital vein after exercise (LUNDSGAARD and MÖLLER) 315
Content of blood drawn from a cubital vein at different intervals after exercise (LUNDSGAARD and MÖLLER) 477

Oxygen—*continued:*
Content of blood drawn from a cubital vein before exercise (LUNDSGAARD and MÖLLER) 315
Venous blood drawn from arm at different intervals after leg exercise (LUNDSGAARD and MÖLLER) 479
— — — from arm during rest (LUNDSGAARD and MÖLLER) 479
Oxygen content:
Venous blood drawn from arm after various amounts of exercise (LUNDSGAARD and MÖLLER) 600
— — — from arm after various kinds of exercise (LUNDSGAARD and MÖLLER) 600
— — — from arm during rest (LUNDSGAARD and MÖLLER) 600
Oxygen unsaturation:
Venous blood drawn from arm after various amounts of exercise (LUNDSGAARD and MÖLLER) 600
— — — from arm after various kinds of exercise (LUNDSGAARD and MÖLLER) 600
— — — from arm during rest (LUNDSGAARD and MÖLLER) 600

P

Palmitic acid:
Isolation (ANDERSON) 615
Pancreas:
Nucleotides formed by the action of, on yeast nucleic acid (JONES and PERKINS) 557
Pancreatic diabetes:
Eck fistula, effect of (HENDRIX and SWEET) 161
Peanut:
Flour. *See* Flour, peanut.
Pentoxide:
Preparation (HAGGARD) 133
Persulfate:
Use in the estimation of nitrogen by Arnold-Gunning's modification of Kjeldahl's method (WONG) 427
— — — — of nitrogen by Folin's direct nesslerization method (WONG) 431
Phaselin:
Composition, elementary (WATERMAN, JOHNS, and JONES) 99
Phaseolin:
Amino-acids in, determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 103
Composition, elementary (WATERMAN, JOHNS, and JONES) 99
Nitrogen distribution in, determined by Van Slyke's method (WATERMAN, JOHNS, and JONES) 103
Preparation by ammonium sulfate method (WATERMAN, JOHNS, and JONES) 99

Phaseolus vulgaris:
Conphaseolin, new globulin from (WATERMAN, JOHNS, and JONES) 93
Phenylacetyl benzyl cysteine:
Preparation (SHIPLE and SHERWIN) 677
Phenylpropionic acid:
Defense of fowl against (CROWDLE and SHERWIN) 18
Phenyluramino benzyl cysteine:
Preparation (SHIPLE and SHERWIN) 679
Phenyluramino cysteine:
Preparation (SHIPLE and SHERWIN) 683
Phenyluramino cystine:
Preparation (SHIPLE and SHERWIN) 674
Phlorhizin:
Diabetes, mechanism (NASH and BENEDICT) 757
Phosphatide:
Isolation (ANDERSON) 620
Phosphoric acid:
Precipitation with magnesia mixture (JONES and PERKINS) 346
Preparation of standard solution (JONES and PERKINS) 345
Phosphorus:
Inorganic, of plasma of ninety-one normal adults, determined by the Bell-Doisy method (TOLSTOI) 157
Inorganic, of serum of ninety-one normal adults, determined by the Bell-Doisy method (TOLSTOI) 157
Phosphorus—*continued:*
Organic, gravimetric determination (JONES and PERKINS) 343
Physiology:
Muscular exercise (BARR, HIMWICH, and GREEN) 495
(BARR and HIMWICH) 525, 539
Phytosterol:
Fat from corn pollen, properties (ANDERSON) 622
— — — —, purification (ANDERSON) 622
Pollen of White Flint corn (ANDERSON) 611
Phytosterol palmitate:
Saponification (ANDERSON) 614
Piperil:
Ammonium cyanide, action of, on (DAKIN and HARINGTON) 493
Pituitrin:
Urea excretion rate, effect on (ADDIS and DRURY) 636
Plasma:
Inorganic phosphorus of, in ninety-one normal adults, determined by the Bell-Doisy method (TOLSTOI) 157
Pollen:
Corn, ether extract of, unsaponifiable matter contained in (ANDERSON) 625
—, fat from, saponification (ANDERSON) 621
Corn, phytosterol from fat of, properties (ANDERSON) 622
—, — — fat of, purification (ANDERSON) 622

Pollen—*continued:*
White Flint corn, hydrocarbon occurring in (Anderson) 611
— — —, lipoids occurring in (Anderson) 611
— — —, phytosterol occurring in (Anderson) 611

Potassium:
Growth of young rats in relation to (Miller) 61
Nutrition, animal, potassium in (Miller) 45, 61
Urinary sodium and chlorine excretion, influence on (Miller) 45

Protein(s):
Amino-acid content of, in comparison with arachin (Eddy and Eckman) 120
— — —, in comparison with conarachin (Eddy and Eckman) 120
Coagulation points, in saline extract (Waterman, Johns, and Jones) 95
Efficiency of combinations of cornmeal and feeding-stuffs, notably rice bran, (Maynard, Fronda, and Chen) 145
Muscle, protein-supplementing value of peanut flour when combined with white flour as compared (Eddy and Eckman) 123

Protein(s)—*continued:*
Serum, refractometric determination (Neuhausen and Rioch) 353
Value of peanut flour, supplementary (Eddy and Eckman) 119

Protoplasmic material:
Extraction, new method (Chibnall) 333

R

Reproduction:
Diet, synthetic, adequacy for (Sugiura and Benedict) 37
Milk, effect of (Mattill and Stone) 443

Respiration:
Exercise, heavy, effect of (Lundsgaard and Möller) 315, 477, 599

Rice:
Bran, protein efficiency of combinations of cornmeal with (Maynard, Fronda, and Chen) 145

S

Salt(s):
Excretion of inorganic, kidney action as regards (Denis) 171
Metabolism, inorganic (Gross) 729

Serum:
Blood, in nephritis, inorganic constituents (Denis and Hobson) 183
Inorganic phosphorus of, in ninety-one normal adults, determined by the Bell-Doisy method (Tolstoi) 157

Serum—*continued:*
Proteins, refractometric determination (NEUHAUSEN and RIOCH) 353
Sodium:
Excretion, urinary, influence of potassium on (MILLER) 45
Sodium chloride:
Excretion (DENIS) 173
— after intravenous injection (DENIS) 178
Extract, coagulation points of protein in (WATERMAN, JOHNS, and JONES) 95
Sodium citrate:
Injection, effect on inorganic ion ratio of blood (GROSS) 735
Sodium hydroxide:
Nucleotides from yeast nucleic acid by the action of, at room temperature (JONES and PERKINS) 567
Sodium oxalate:
Injection, effect on inorganic ion ratio of blood (GROSS) 730
Sodium phosphate:
Excretion (DENIS) 174
— after intravenous injection (DENIS) 178
Sodium sulfate:
Excretion (DENIS) 172
— after intravenous injections (DENIS) 177
Sugar:
Blood. *See* Blood, sugar.
Elimination after subcutaneous injection of glucose in dog (BENEDICT and OSTERBERG) 769
Sunlight:
Organism, beneficial influence on (POWERS, PARK, and SIMMONDS) 575
Suprarenal:
Physiology, relation of lipoids to (BAUMANN and HOLLY) 457
Suprarenalectomy:
Cholesterol content of blood of rabbits after (BAUMANN and HOLLY) 457
— — — blood of rabbits before (BAUMANN and HOLLY) 457
Lipoid phosphorus content of blood of rabbits after (BAUMANN and HOLLY) 457
— — — of blood of rabbits before (BAUMANN and HOLLY) 457

T

Temperature:
Hydrolysis of yeast nucleic acid with dilute alkali at room temperature (LEVENE) 9
Tissue(s):
Extract at different hydrogen ion concentrations, lipolytic action (NOYES, SUGIURA, and FALK) 653
Sea-lion, distribution of copper in (SEVERY) 90
—, — — zinc in (SEVERY) 90
Whale, distribution of copper in (SEVERY) 90
—, — — zinc in (SEVERY) 90

Tumor:
Extract at different hydrogen ion concentrations, lipolytic action (NOYES, SUGIURA, and FALK) 653

U

Uracil:
Nucleotide (JONES and PERKINS) 558
Urea:
Blood, concentration, effect of changes in, on rate of urea excretion (ADDIS and DRURY) 105
—, —, — of very high, on rate of urea excretion (DRURY) 113
Excretion rate, effect of changes in blood urea concentration on (ADDIS and DRURY) 105
— —, — of very high blood urea concentrations on (DRURY) 113
Urea concentration:
Blood, effect of various other factors than, on rate of urea excretion (ADDIS and DRURY) 629
Urea excretion:
Rate, effect of various other factors than blood urea concentration on (ADDIS and DRURY) 629
Urine volume, effect of changes in, on rate (ADDIS and DRURY) 639
Uric acid:
Elimination, endogenous, influence of carbohydrates (LEWIS and CORLEY) 373
Uric acid—*continued:*
Elimination, endogenous, influence of fats (LEWIS and CORLEY) 373
Excretion by man, effect of organic acids on (GIBSON and DOISY) 605
Light exposure as a source of error in estimating, by Folin-Wu method (ROGERS) 325
Metabolism, studies (LEWIS and CORLEY) 373
Uridine:
Nucleotide, fraction containing (LEVENE) 12
Urine:
Volume, effect of changes in, on rate of urea excretion (ADDIS and DRURY) 639

V

Vacuole:
Extraction, new method (CHIBNALL) 333
Vitamine:
Antineuritic, yeast synthesizes (HELLER) 394
Vitamine A:
Nutrition of pigeons (SUGIURA and BENEDICT) 39
Vitamine B:
Carbohydrate utilization by rats deprived of (MATTILL) 717
Content of yeast (HELLER) 385
Determination, modified technique in the use of the rat for (STEENBOCK, SELL, and NELSON) 399

Vitamine B—*continued:*
Non-identity with bios (WILLAMAN and OLSEN) 816
Storage by rat (STEENBOCK, SELL, and JONES) 411
—, relation of age to (STEENBOCK, SELL, and JONES) 412
—, — — diet to (STEENBOCK, SELL, and JONES) 415
—, — — weight to (STEENBOCK, SELL, and JONES) 412

W

Water:
Ethyl ether distributed between air and (HAGGARD) 138
— — in, analytical estimation (HAGGARD) 136

Weight:
Vitamine B storage, relation to (STEENBOCK, SELL, and JONES) 412

Wheat:
Flour. *See* Flour, wheat.

X

Xanthosine:
Diazomethane on (LEVENE) 437
Methylation (LEVENE) 440

Xerophthalmia:
Radiant energy, effect of (POWERS, PARK, and SIMMONDS) 575

Y

Yeast:
Antineuritic vitamine, synthesized by (HELLER) 394

Yeast—*continued:*
Bakers', bios necessity for normal growth (WILLAMAN and OLSEN) 821
—, — requirement (WILLAMAN and OLSEN) 815
Growth, function of bios in (WILLAMAN and OLSEN) 824
— without bios (WILLAMAN and OLSEN) 823
Milk rations containing (MATTILL and STONE) 448
Vitamine B content (HELLER) 385

Yeast nucleic acid:
Hydrolysis with dilute alkali at room temperature (LEVENE) 9
Nucleotides formed by the action of boiled pancreas on (JONES and PERKINS) 557
Nucleotides from, by the action of sodium hydroxide at room temperature (JONES and PERKINS) 567

Z

Zinc:
Content, comparison for California and Eastern marine animals (SEVERY) 89
Cryptochiton (*stelleri*) distribution in (SEVERY) 89
Occurrence in marine animals (SEVERY) 79
Tissues of sea-lion, distribution in (SEVERY) 90
— — whale, distribution in (SEVERY) 90